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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/648,990	08/27/2003	Chester Lee Balestra	038190/267438	4406

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EXAMINER
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WANG, GEORGE Y

ART UNIT	PAPER NUMBER
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2871

DATE MAILED: 03/08/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/648,990

Applicant(s)

BALESTRA ET AL.

Examiner

George Y. Wang

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☒ Claim(s) 2 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 August 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____.  |

## **DETAILED ACTION**

### ***Claim Objections***

1. Claims 2 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Claim 2 is not limiting claims since it recites the same limitations found in the independent Claim 1.

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. Claims 1-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jen (U.S. Patent No. 5,170,457) in view of Akasaka et al. (U.S. Patent No. 5,848,215, from hereinafter "Akasaka").

4. As to claims 1-2, Jen discloses an optical fiber having an elevated threshold for stimulated Brillouin scattering having a longitudinally extending core having a first index of refraction and a first acoustic wave propagation velocity, a cladding surrounding the core and extending along the lengthwise direction with a second index of refraction that is less than the first index and a second acoustic wave propagation velocity that is less than the first acoustic wave propagation velocity (abstract). Jen further discloses an optical fiber coating layer that is made of an acoustically dampening material matched to the cladding (col. 6, lines 48-51).

However, although Jen discloses a coating disposed on the cladding, the reference fails to specifically disclose that it is irregular and varies in a lengthwise direction.

Akasaka teaches an optical fiber that has an irregular coating disposed on the cladding that varies in a lengthwise direction (col. 1, lines 55-65).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have an irregular coating disposed on the cladding that varies in a lengthwise direction since one would be motivated to alter a mode profile in the acoustic waves. The stimulated Brillouin scattering is likely to occur so far as the fiber

structure is uniform in view of the refractive index and acoustic propagation velocity of optical fibers (col. 1, lines 48-50). Therefore, in order to elevate threshold, it is preferred that the structure of an optical fiber not be made uniform in the lengthwise direction giving a certain change, such as mode profile alteration of the acoustic wave, to the optical fiber (col. 1, lines 50-54).

5. As to claim 3, Jen discloses the optical fiber having an elevated threshold for stimulated Brillouin scattering as recited above. However, the reference fails to specifically teach an irregular coating having a density that varies randomly in a lengthwise direction.

Akasaka teaches an optical fiber that has an irregular coating disposed the cladding with a density that varies in a lengthwise direction (col. 1, lines 55-65).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have an irregular coating disposed on the cladding with a density that varies in a lengthwise direction since one would be motivated to alter a mode profile in the acoustic waves. The stimulated Brillouin scattering is likely to occur so far as the fiber structure is uniform in view of the refractive index and acoustic propagation velocity of optical fibers (col. 1, lines 48-50). Therefore, in order to elevate threshold, it is preferred that the structure of an optical fiber not be made uniform in the lengthwise direction giving a certain change, such as mode profile alteration of the acoustic wave, to the optical fiber (col. 1, lines 50-54).

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6. Regarding claim 4, Jen discloses an optical fiber core doped with aluminum oxide (col. 6, lines 57-64).

7. As to claim 5, Jen discloses an optical fiber cladding doped with fluorine or boron oxide (col. 6, lines 48-51).

### ***Double Patenting***

8. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

9. Claims 1, 2, 5, and 6 are rejected under the judicially created doctrine of double patenting over claims 1, 6, 8, and 10 of U. S. Patent No. 6,687,440 since the claims, if allowed, would improperly extend the "right to exclude" already granted in the patent.

The subject matter claimed in the instant application is fully disclosed in the patent and is covered by the patent since the patent and the application are claiming common subject matter, as follows: Claims 1 and 2 claim the same optical fiber having an elevated threshold for stimulated Brillouin scattering comprising an acoustically dampening material that is acoustically matched to the cladding as Claims 1 and 6 of the '440 patent. Claim 5 claims the same optical fiber where the cladding comprises a dopant selected from the group consisting of fluorine and boron oxide as Claim 8 of the '440 patent. Claim 6 claims the same optical fiber that varies irregularly in a lengthwise direction in order to alter a mode profile of the acoustic waves as Claim 10 of the '440 patent.

Furthermore, there is no apparent reason why applicant was prevented from presenting claims corresponding to those of the instant application during prosecution of the application which matured into a patent. See *In re Schneller*, 397 F.2d 350, 158 USPQ 210 (CCPA 1968). See also MPEP § 804.

### ***Conclusion***


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10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to George Y. Wang whose telephone number is 571-272-2304. The examiner can normally be reached on M-F, 8 am - 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert H. Kim can be reached on 571-272-2293. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

gw  
February 13, 2004

  
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SUPERVISOR/ PATENT EXAMINER  
TECHNOLOGY CENTER 2000